

VS Vocational Rehabilitation, 1919

# The Practice of Optometry and the Training it Requires



For Disabled Soldiers  
Sailors, and Marines to Aid Them  
in Choosing a Vocation

APRIL, 1919

## OPPORTUNITY MONOGRAPH



Vocational Rehabilitation  
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### **Note to the Disabled Soldier, Sailor, or Marine.**

As a disabled soldier, sailor, or marine you should remember that the Office of the Surgeon General, War Department, and all its employees, the Bureau of Medicine and Surgery, Navy Department, and all its employees, and the Federal Board for Vocational Education and all its employees are mutually interested in your welfare solely. They have arranged a definite plan of cooperation to help you in every possible way. You can not afford to leave the hospital until the medical officers have done everything that they can for you to restore you to physical health and strength. Any other course will interfere with your vocational success later. Furthermore, you should by all means take advantage of the educational opportunities which the hospital has provided for you.

While you are making up your mind what line of work you want to follow you should take advantage of the opportunities to try yourself out in the different lines of activities which are provided at the hospital. When once you have made up your mind as to the employment you want to enter or the kind of training you want the Federal Board to give you after you leave the hospital, you should ask the vocational officers at the hospital to provide for you the kind of training which will advance you in the direction of the occupation which you expect to follow or for which you expect to be trained after you leave the hospital. You will find the educational officers at the hospital eager to render this service for you, and you should consult them early in your hospital career.

All disabled soldiers, sailors, and marines in hospitals who want information about reeducation should ask any instructor of the Hospital Educational Service or the representative of the Federal Board for Vocational Education.

Men discharged from the military or naval service who want information should write to or call at the office of the Federal Board for Vocational Education, Washington, D. C., or the District Office of the Federal Board of the district in which they are located. The district offices of the Board are located at the following points: Boston, New York City, Philadelphia, Washington, Atlanta, New Orleans, Dallas, St. Louis, Cincinnati, Chicago, Minneapolis, Denver, San Francisco, and Seattle. For addresses see p. 7.

### **Acknowledgment.**

The material of this monograph was compiled by S. Reid Warren, editor of The Keystone Magazine of Optometry, assisted by several successful practicing optometrists, to whom acknowledgment is gratefully accorded. The monograph has been prepared under the direction of Charles H. Winslow, Chief of the Research Division of the Federal Board for Vocational Education. Acknowledgment is due Dr. John Cummings, of the Research Division, for editorial assistance.

## THE PRACTICE OF OPTOMETRY AND THE TRAINING IT REQUIRES.

It is an indisputable fact that the efficiency of the American troops during the late war was greater than that of any other army. One factor which contributed largely to their success is apt to be overlooked by the casual observer, but excited comment wherever our troops were thickest in the fray: *Our men were properly glassed.*

You, for whom this monograph is written, well know how thoroughly and systematically your eyes were examined. Perhaps you do not know that the actual testing of your eyes and the adoption of proper glasses whenever necessary to bring vision up to normal was done in a number of camps by optometrists.

What an important part glasses played in the success of our Army and Navy is a chapter yet to be written.

Now that the conflict is over it is fitting to call attention to the opportunity of entering a profession which has contributed so much to the winning of the war. And as optometry is a comparatively strange word to those not personally concerned with the profession, an explanation of its meaning had best preface this monograph.

### What is an Optometrist?

An optometrist examines eyes for the detection and correction of *visual* or *muscular* defects not requiring medical attention. He uses no drugs; he does not treat *diseases* of the eye, nor does he practice surgery. To one not familiar with optical sciences it may be difficult to comprehend, then, what the work of the optometrist includes. Comparison of his work with two better known and somewhat related vocations—that of the oculist and that of the optician—will perhaps be the quickest method of explaining the practice of optometry.

First, let it be understood that the human eye may be considered as a refracting and focusing mechanism, similar to a camera, as well as an organ subject to diseases like any other part of our body.

An *oculist* (a physician who specializes on the eye) deals both with refraction and muscular deficiencies, and with pathological or diseased conditions.

An *optometrist*, on the other hand, specializes on the functions of the eye as a refracting and focusing apparatus.

An *optician* grinds the lenses and puts together the necessary fittings to form the eyeglasses prescribed by the oculist or the optometrist.

### Type of Man Required.

The serious nature of the optometrist's work—the care of human vision—makes it imperative that only men of good moral character and high ideals be admitted to the practice of optometry. An optometrist should be more interested in helping his patient than in making

Uncle Sam,  
Your Friend.

No other friend of relative ever made such liberal provision for disabled men returning from a war as your Uncle Sam has made for you.

In addition to the excellent medical and reconstruction service for men in the hospitals, he has authorized the Federal Board for Vocational Education to see to it that you shall, if you are entitled to the benefits of the war-risk insurance act, have opportunity, if you want it and need it, to be trained and placed in any one of the hundreds of occupations which the rich life of America offers.

It is the duty of the Federal Board to provide this training for you in school, office, shop, factory, farm, or anywhere else it becomes necessary in order to help you go "over the top" successfully into civil life.

Not only will you receive this instruction free, but you and your dependents will be properly supported by the Government while you are in training.

### If You Are Single.

If you are a single man without dependents, or a man required by his course of instruction to live apart from his dependents, you will be paid by the Government at least \$65 per month. You may be paid more. If, for example, you received more than \$65 per month as pay for your last month of active service, you will receive this same pay during your entire course of training. Furthermore, if your disability is such that your monthly compensation under article 3 of the war-risk insurance act is greater than \$65, you will continue to receive this sum, whatever it may be, during your entire course.

### If You Are Married.

If you are married, you and your wife together will receive \$75 per month from the Government, provided you live together while you are taking a course of instruction. If your course is such that you must live apart, the Government will, as has already been stated, pay you \$65 per month and your wife \$30 per month. The larger your family, the larger the amount paid by the Government for its support, whether living with you or separately from you while you are being trained.

money; he should be tactful, and not only professionally competent, but of the type of personality that inspires confidence. He should realize that the completion of his course of technical instruction and the receipt of a license to practice merely mark matriculation in a post-graduate course stretching out to the end of his days of practice. He should not enter the profession of optometry unless willing to continue the study of never-ending developments in this science and practice.

### Length of Preparatory Training.

As the optometrist takes up little in medical studies, his technical training requires a briefer time than that of the physician or oculist. The optometrist, of course, must be able to recognize the symptoms of eye diseases, but does not attempt to remedy them; he refers such cases to a physician.

In view of the lesser scope of the work of the optometrist his course of technical training covers only two to four years, as against four to seven years for medical education.

The practice of optometry is regulated by law in 41 States, and in Hawaii, Philippine Islands, Porto Rico, and Alaska. These laws usually require a general education equivalent to two years of high school instruction and (before admission to examination for a license) completion of a course in a school of optometry having an approved two-year course, in addition to one year of practical service in an optometrist's office.

The laws of the different States vary considerably as to these requirements, and the prospective optometrist should inform himself as to the provisions of the law in the State in which he expects to practice. A few optometry laws have reciprocity clauses, making it permissible for licensees of one State to practice in another.

Most of the schools have two-year courses—some longer. One of the universities—Ohio State—has an optometry course laid out over a period of four years. The course at Columbia University is planned to cover two years. In a number of instances it has been covered in one year by students who were exceptionally well prepared. The studies in optical subjects can be counted toward a B. S. degree, for which four years are required, as is usual. Besides these universities, a number of schools of optometry in various parts of the country have two to three year courses. A list of such schools and their addresses may be obtained from the Federal Board for Vocational Education.

### The Optometrist's Work.

The word "optometry" is made up of two Greek words: *optos*, visible and *metron*, a measure, meaning the measurement of the visual powers. Examination for detection of visual deficiencies includes tests by the use of charts and of certain precise measuring instruments. For example: One instrument permits inspection of the interior of the eye; another, measurement of the curvature of the cornea; still another, the field of vision. With the data obtained by the intelligent use of all these instruments the optometrist can determine the nature of the lenses required to correct any refractive errors found.

Formerly glasses were given merely as an aid to vision, now they are prescribed for the relief of strain and its resultant symptoms, such as headache, etc. They are also supplied for efficiency and protection purposes to factory employees, for some workmen without glasses will

exhibit as much eye fatigue in 5 hours as others will in 10; and employers are now recognizing this to their own advantage.

Thus the field of usefulness and profit for optometrists is ever enlarging.

### Indoor Work—Physical Requirements.

An optometrist confines his practice to office work, there being no traveling or outdoor activity. If desired, his office may be established in his own home. As the work is all indoors, there is no great physical strain. While sound health and normal strength are always desirable, robustness is not a first requirement of this vocation; nor is possession of all the members essential. A man who has lost a hand, an arm, a leg, or even both legs could successfully practice the profession of optometry, if properly fitted with artificial equipment. It is also quite possible for a man with one eye to practice optometry. To a determined man this would not prove an insurmountable obstacle, though he might be at a disadvantage because some patients might think he could not do his work as well. This is, of course, unreasonable, but should be considered. Several instances are known to the writer of successful optometrists who have lost the sight of one eye through cataract or other cause.

A Colorado woman who has been practicing optometry for a number of years sums up some of the advantages of this profession in the following words:

"There are fewer objectionable features, and more to commend the practice of optometry than in any other profession or semiprofession. No midnight calls, as in the case of the physician; no direct contact, as in osteopathy, or chiropractic; no proximity to offensive breath, as in dentistry. Variety and fascination attach to the work, besides the joy that comes with doing something that relieves suffering and is beneficial to humanity. The time required for preparation and getting established is somewhat less than for other professions; the expense incurred more moderate."

### The Demand for Optometrists.

No man taking up the study of optometry need fear a lack of opportunity when his course is completed. There is a scarcity of optometrists all over this broad land, and in thousands of optometrists' offices to-day opportunities are open for assistants. As such, an optometrist can develop a following, and eventually start for himself. Moreover, the call of young men to the defence of their country cut down the number of students in this, as in all other vocations; hence the number of graduates from the optometric schools and colleges is insufficient to meet the demand.

Another advantage in following this vocation is the fact that the profession is still in the formative stage. For this reason there are unusual opportunities for progressive, studious, conscientious men of the professional type.

The hours of work, which are regular, are of course determined by the individual practitioner; the man who has established his own office can make his hours to suit his own convenience. If he is employed by another optometrist, he will find the hours are not as long as in many other callings.

**Train what you have left.**

You will not then miss what you have left over there. What you have left and are bringing home with you is pretty much all of you that counts. You know that. Prove it to others by taking the training which Uncle Sam stands ready to give you entirely at his expense. He will pay for your instruction, and support you and your dependents while you are in training. Don't think about what you left over there. Train what you are bringing back home, and forget the rest.

### Scope of a Course in Optometry.

The curriculum of the course in applied optics in one of our leading universities will give a comprehensive survey of the branches of scientific knowledge forming the science of optometry. The following subjects are included in this course: Chemistry, anatomy, physics, physiology, algebra, geometry, trigonometry, bacteriology, optics, psychology, drawing, pathology, and English composition. Under theoretical and applied optics are of course grouped the chief subjects bearing upon the science and practice of optometry. The mathematical studies are necessary as a foundation for an understanding of the optical science.

While the university course, in its cultural as well as technical development, is desirable, still, as in other professions and callings, success and service are not dependent upon the completion of such a course. But general education, culture and personality developed therefrom are all potent factors in success in any profession, and should be acquired from one source or another before or during technical training.

### Possible Income.

As in other professions, it usually requires a few years to build up a practice, but few men who have started under proper conditions and with fair qualifications have failed to achieve success. An income of \$1,500 or \$2,000 yearly is common, and many optometrists earn incomes of from \$5,000 to \$10,000. As an employee of another optometrist, a practitioner can earn from \$30 to \$50 a week, and even more.

Optometry is not a means of earning a living with ease nor a haven for the indolent, but it does offer a reasonable competency without unusual sacrifice or hardship.

### Examples to follow.

A former carpenter whose left leg was amputated above the knee on account of injuries received in battle studied machine designing and is now employed by a railway.

Another soldier suffered with chronic bronchitis and asthma, and found it inadvisable to return to his former occupation as a bartender. He was trained as a motor mechanic and secured an open-air position as chauffeur.

A former laborer was weakened by a gunshot wound in the back and abdomen. He was given a course in mechanical drawing and is now employed in a drafting room.

A soldier suffering from chronic nephritis, formerly a farmer, studied machine-shop practice and is now employed in the tool room of a motor company.

A machinist's helper lost the power to use his left hand, was retrained in a course for steam engineering, and is now employed as a stationary engineer in a roundhouse.



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All disabled soldiers, sailors, and marines, whether in or out of the hospital, should address their communications either to the Federal Board for Vocational Education, Washington, D. C., or to the district office of the Federal Board of the district in which he is located. The district offices of the Board are located at the following points:

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